

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-24 (Canceled).

Claim 25 (New): An apparatus for transporting dry powder from an external bulk powder source to a dose filling tool during volumetric filling of metered doses, the apparatus comprising:

a feeding chamber device having at least one inlet adapted for receiving portions of dry powder from the external bulk powder source and at least one outlet adapted for dispensing powder to the dose filling tool;

an internal volume of the feeding chamber device is configured to hold a limited amount of powder representing a limited number of doses, and the feeding chamber device is configured to be replenished intermittently with powder from the external bulk powder source for maintaining a level of powder in the internal volume within specified limits over plural cycles of volumetric dose filling;

the feeding chamber device and the dose filling tool are arranged to be movable in relation to each other while the at least one outlet of the feeding chamber device is forcibly in contact with a surface of the dose filling tool during the relative movement, the relative movement providing shearing and frictional forces on a pillar of powder in the internal volume of the feeding chamber device, thereby assisting in providing a coherent plug of powder within the feeding chamber device; and

the feeding chamber device constitutes an independent, intermediate device, separating the bulk powder source from the dose filling tool.

Claim 26 (New): The apparatus according to claim 25, wherein
the feeding chamber device comprises at least one energizable member, when
energized capable of collapsing a body of powder in the feeding chamber device into a
homogeneous plug of powder and separating the plug of powder from having generally
contact with the inner surface of the feeding chamber device.

Claim 27 (New): The apparatus according to claim 26, wherein
the energizable member comprises at least one scraper member movable relative to
the feeding chamber device.

Claim 28 (New): An apparatus for volumetric production of doses of dry powder, the
apparatus comprising:

a bulk powder source containing the powder and comprising means for releasing
portions of the powder;
a feeding chamber device comprising at least one inlet adapted for receiving portions
of powder from the bulk powder source and at least one outlet adapted for dispensing powder
to at least one powder metering receptacle of a dose filling tool;

the dose filling tool and the at least one outlet of the feeding chamber device are
arranged for being movable in relation to each other such that the at least one outlet of the
feeding chamber device is forcibly in contact with a surface of the dose filling tool during the
relative movement; and

air suction means adapted for applying air suction power to fill the at least one
metering receptacle with a dose of the powder when the at least one outlet of the feeding
chamber device crosses the at least one metering receptacle during the relative movement,

wherein the feeding chamber device constitutes an independent, intermediate device, separating the bulk powder source from the dose filling tool.

Claim 29 (New): The apparatus according to claim 28, wherein
the surface of the dose filling tool comprising the at least one metering receptacle is
plane.

Claim 30 (New): The apparatus according to claim 28, wherein
a filter is applied to the at least one metering receptacle such that powder particles are
not lost to air being sucked during filling of the at least one metering receptacle.

Claim 31 (New): The apparatus according to claim 30, wherein
the filter is a woven filter.

Claim 32 (New): The apparatus according to claim 28, wherein
mechanical strength of the filter is re-enforced by arranging at least one of a
supporting wire netting at one or both sides of the filter or a supporting sintered filter at one
or both sides of the filter.

Claim 33 (New): The apparatus according to claim 28, wherein
a spring force is applied to keep contact pressure between an air nozzle, the filter, and
an opening of the at least one metering receptacle for sucking air, such that elastic seals
sealing the nozzle, the filter, and at least one metering receptacle stops leakage of air and
powder into and out of the at least one metering receptacle.

Claim 34 (New): The apparatus according to claim 28, wherein
a source of electric charges is arranged in an air gap between the dose filling tool and
a dose container, such that electrically charged particles in an ejected powder load become
electrically neutralized while being transferred from at least one metering receptacle to the
dose container.

Claim 35 (New): The apparatus according to claim 28, wherein
sources of electric charges are arranged at a working distance to the bulk powder
source or at a working distance to the powder in the feeding chamber device and to the dose
filling tool to electrically neutralize electrostatic charges of the powder and the apparatus.

Claim 36 (New): The apparatus according to claim 28, further comprising:
air pressure means for applying air pressure power to eject a metered dose of powder
from the at least one metering receptacle when the receptacle is in a position for emptying
into a dose container.

Claim 37 (New): A method of transporting dry powder from an external bulk powder
source to a dose filling tool during volumetric filling of metered doses, comprising:
intermittently feeding a portion of powder from the external bulk powder source to a
feeding chamber device through at least one inlet of the feeding chamber device, the feeding
chamber device configured to contain a limited amount of powder representing a limited
number of doses, and comprising at least one outlet adapted for dispensing powder to the
dose filling tool; and
providing a relative movement between the feeding chamber device and the dose
filling tool while the at least one outlet of the feeding chamber device is in forcible contact

with a surface of the dose filling tool during the relative movement, the relative movement providing shearing and frictional forces on a pillar of powder in the feeding chamber device, thereby assisting in providing a coherent plug of powder within the feeding chamber device, wherein the feeding chamber device constitutes an independent, intermediate device, separating the external bulk powder source from the dose filling tool and transporting the dry powder from the external bulk powder source to the dose filling tool.

Claim 38 (New): The method according to claim 37, further comprising:
energizing at least one energizable member in the feeding chamber device, which when energized is capable of collapsing a body of powder in the feeding chamber device into a homogeneous plug of powder and generally separating the body of powder from having contact with the inner surface of the feeding chamber device.

Claim 39 (New): The method according to claim 38, wherein
the at least one energizable member comprises at least one scraper member movable relative the inside of the feeding chamber device.

Claim 40 (New): A method of producing volumetric doses of dry powder,
comprising:
intermittently replenishing as required a portion of powder from a bulk powder source to at least one inlet of a feeding chamber device;
providing a relative movement between the feeding chamber device and a dose filling tool comprising at least one powder metering receptacle such that at least one outlet of the feeding chamber device crosses the at least one metering receptacle in such a way that the at least one outlet is in forcible contact with a surface of the dose filling tool; and

applying air suction power to fill the at least one metering receptacle with a dose of the powder from the feeding chamber device when the at least one outlet of the feeding chamber device crosses the at least one metering receptacle,

wherein the feeding chamber device constitutes an independent, intermediate device, separating the bulk powder source from the dose filling tool and the applied air suction to the metering receptacle.

Claim 41 (New): The method according to claim 40, wherein the surface of the filling tool is plane.

Claim 42 (New): The method according to claim 40, further comprising: applying a filter to the at least one metering receptacle such that powder particles are not lost to air being sucked during filling of the receptacle.

Claim 43 (New): The method according to claim 40, further comprising: re-enforcing mechanical strength of the filter by arranging at least one of a supporting wire netting at one or both sides of the filter or a supporting sintered filter at one or both sides of the filter.

Claim 44 (New): The method according to claim 40, further comprising: applying a spring force to obtain contact pressure between an air nozzle, the filter, and an opening of the at least one metering receptacle for sucking air, such that elastic seals sealing the nozzle, the filter, and the at least one metering receptacle stops leakage of air and powder into and out of the receptacle.

Claim 45 (New): The method according to claim 40, further comprising:
arranging a source of electric charges in an air gap between the filling tool and a dose container, such that electrically charged particles in an ejected powder load become electrically neutralized while being transferred from the at least one metering receptacle to the dose container.

Claim 46 (New): The method according to claim 40, further comprising:
arranging sources of electric charges at a working distance to the bulk powder source or at a working distance to the powder in the feeding chamber and to the filling tool to accomplish that electrostatic charges of the powder and the apparatus become electrically neutralized such that the filling process is not adversely affected.

Claim 47 (New): The method according to claim 40, further comprising:
applying air pressure powder to eject a metered dose of powder from the at least one metering receptacle when the receptacle is in a position for emptying into a dose container.

Claim 48 (New): The method according to claim 40, wherein
a mass target of the doses is in a range of 100 µg - 50 mg, or in a range of 100 µg - 10 mg, or in a range of 100 µg - 5 mg.